U.S. Army Air Forces

MANAGEMENT OF COMMON CUTANEOUS DISEASES

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HEADQUARTERS, ARMY AIR FORCES
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FOREWORD

1. The accompanying outline of treatment and management of cutaneous diseases in military personnel is designed to supply the medical officer with a conservative, safe routine for the management of cases commonly encountered.

2. The great majority of skin conditions seen in military personnel fall into a limited number of types, most of which are acute and self-limited and will clear with careful non-irritating treatment. Most cases do not of themselves require hospitalization, but unfortunately, treatment reactions and complications because of delayed and improper treatment have resulted in prolonged disability and hospitalization in many instances.

3. Most cases will be found to fall within the 30 conditions or diseases included in the outline. No attempt has been made to give details of etiology, pathology or differential diagnosis. The medical officer should refer to "Manual of Dermatology", Military Medical Manuals, 1943, and other standard text books of dermatology, when these are available. The present outline is intended as a handy, simple reference and a copy should be kept in every dispensary.

4. Treatment recommendations have been limited to a small number of drugs and formulas. Careful attention to the state and stage of the cutaneous process and good judgment in application of simple medication will produce satisfactory results in most cases.

5. This manual is not to be construed as restricting qualified specialized medical personnel from deviating from recommendations contained herein. It is published for the information of Medical Officers and is not a directive.

By command of General ARNOLD:

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DISTRIBUTION:

MANAGEMENT OF COMMON CUTANEOUS DISEASES

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SECTION I - GENERAL RECOMMENDATIONS

1. TYPE OF CARE

a. Ambulatory care. The majority of cases of cutaneous disease can be satisfactorily cared for on a duty status by the dispensary medical officer utilizing the basic therapeutic principles outlined herein. Cases which do not make a satisfactory response will be seen by a dermatologic consultant or hospitalized.

b. Hospital care. Immediate hospitalization is recommended for the following groups of cases:

(1) All cases with fever, lymphadenitis, lymphangitis, cellulitis, and purpura.

(2) Extensive pruritic, weeping eruptions.

(3) Conditions which are traumatized by performance of duty, i.e., as result of sweating, heat, maceration, cold, clothing, and equipment.

(4) Conditions which prevent the performance of duty.

(5) Conditions which offend the sensibilities of the patient or his associates if he remains on a duty status.

2. EXAMINATION

a. It is desirable that the initial examination of individuals with cutaneous disease include an inspection of the entire skin surface and the mucous membranes. Daylight will be used when possible.

b. Serologic tests for syphilis should be done in all cases of genital lesions and in all generalized macular and papular eruptions.

c. The patient should be questioned as to drug ingestion in all cases of generalized erythematous eruptions. In these cases a lignin test for sulfonamides in the urine should be done routinely.

3. TREATMENT - General Principles

a. Most common skin diseases will respond to mild, conservative treatment. Inasmuch as skin conditions are frequently irritated by overtreatment, leading to disabling complications and prolonged hospitalization, it is recommended that treatment be initiated with drugs and concentrations indicated in Section II.

b. Initial local treatment should be guided by the visible eruption and its intensity and type, as follows:

(1) Acute weeping and pustular eruptions

(a) Wet dressings of boric acid solution, cool to relieve itching and hot for infected areas. Burow's solution is an excellent alternate and can be used at any time to replace boric acid solution. It may be preferable when large areas are involved. (Burow's solution tablets, Medical Supply Catalogue 1108400).

(b) For wet dressings use unstarched discarded sheeting, napkins or pillow cases (do not use gauze) folded several times, in contact with the involved area; change several times daily; over the material use bath towel saturated with solution.

(c) Cover hot packs with rubber sheeting or oil cloth to conserve heat.

(d) Keep wet dressings wet - cool dressings cool - hot dressings hot.

(2) Acute and Subacute Papular and Vesicular Eruptions.

(a) Use calamine lotion. Add 1% phenol for itching. Apply several times daily. Cleanse skin with clear water or oil.

(3) Dry scaly eruptions

(a) Ointments for small areas (boric acid ointment). Ointment should be rubbed in thoroughly and the excess wiped off.

(b) Oily solutions for widespread areas, e.g.

Rx	Liquid petrolatum	90
	Lanolin	22
	Lime water qs ad	180

Apply twice daily

(4) Thickened dry eruptions

(a) Use mild peeling ointment.

Rx	Salicylic acid	2.0
	Petrolatum qs ad	60.0

Emulsion base - medium (Medical Supply Catalogue 1173800) is an excellent substitute for petrolatum or lanolin.

c. DO NOT

(1) Do not use soap and water on acute or subacute eruptions.

(2) Do not use ointments on weeping areas.

(3) Do not use ointments in axillary and inguinal areas in ambulatory patients in warm climate.

(4) Do not use sulfonamide ointments except in impetigo and ecthyma.

(5) Do not use sulfonamides internally except in erysipelas, cellulitis, and severe pustular infections.

(6) Do not use x-ray and ultraviolet therapy except as prescribed by the dermatologic consultant.

(7) Do not use arsenic compounds in any form unless prescribed by the dermatologic consultant.

(8) Do not order complex and time consuming studies by the x-ray, laboratory, or allergy sections unless recommended by the consulting dermatologist.

(9) Do not use vaccines (autogenous or stock) for pyogenic infections unless prescribed by the dermatologic consultant.

SECTION II - COMMON SKIN DISEASES AND RECOMMENDATIONS FOR MANAGEMENT

1. PYOGENIC INFECTIONS

a. Impetigo Contagiosa

(1) Contagious through direct contact, towels, etc.

(2) Usually occurs on exposed surfaces.

(3) Initial lesion a vesicle which usually becomes purulent, followed by rupture and superficial "stuck on" crust.

(4) Treatment

(a) Hospitalize if spreading under treatment, or if there are more than two cases in the same living group.

(b) Gentle but thorough removal of crusts with soap and water.

(c) Rupture unbroken vesicles and trim the overhanging edges.

(d) Apply 5% sulfadiazine ointment 3 times daily. Do not use for more than five (5) days. If more treatment is required, use 3 to 5 per cent ammoniated mercury ointment, or penicillin, 250 to 500 units per gram of water miscible, neutral, ointment base.

(e) Before each application, be certain that crusts are removed and unbroken vesicles are opened.

(f) After ointment is well rubbed in, wipe off the excess.

(g) When the face is involved, shaving is recommended every other day, using a brushless cream and a sharp blade. A "close" shave should be avoided.

b. Ecthyma

(1) Similar to impetigo but deeper seated.

(2) Slow in healing.

(3) Frequently surrounded by mild inflammatory zone.

(4) More prevalent on extremities and buttocks.

(5) Treatment

(a) Local treatment same as for impetigo.

(b) In persistent cases, look for systemic disease, (anemia, etc.). Do careful bacteriologic studies.

c. Secondary Pyogenic Dermatitis (Infectious Eczematoid Dermatitis)

(1) A purulent infection with multiple pustules with or without crusting.

(2) When on hands, feet, and groin, usually secondary to fungus infections.

(3) When on the extremities, usually secondary to contact dermatitis.

(4) When in the axilla, usually secondary to intertrigo.

(5) It may complicate prickly heat, and may occur around draining sinus tracts.

(6) Treatment

(a) Hospitalization and bed rest.

(b) Continuous hot boric acid wet dressings.

(c) After the acute phase subsides, apply 5% ammoniated mercury 3 times daily.

(d) Avoid drill or exercise until entirely cured.

d. Folliculitis

(1) Superficial infection of the hair follicles.

(2) Most frequently seen on bearded region, edges of scalp and pubic region.

(3) Very common on the faces of negroes.

(4) Frequently results from excessive contacts with oil and grease.

(5) Treatment

(a) Apply ammoniated mercury 3% twice daily - rub in thoroughly and wipe off excess.

(b) Shave daily - shave with hair growth, not against it.

(c) Hospitalize if severe or recurrent.

e. Furunculosis

(1) Treatment

(a) A disease of surface spread.

(1) Careful daily disinfection of normal skin with rubbing alcohol.

(2) Careful control of discharge from draining lesions is essential.

(b) Hospitalize if multiple, on face, in axilla, or in area of trauma.

(c) Continuous hot boric acid wet dressings.

(d) No squeezing.

(e) Do not open until completely "ripe" - make small incision.

(f) When drainage begins, change dressings frequently and paint adjacent areas with a mercurial twice daily.

(g) Penicillin systemically is treatment of choice for cases with multiple lesions which do not respond promptly to simple measures.

2. Acne Vulgaris

a. Usually a self limited disease most frequently seen in young adults.

b. Attention should be given to the general state of health, and the importance of sufficient rest and careful personal hygiene should be stressed.

c. Encouragement and reassurance are important in psychological management.

d. Treatment

(1) Mild cases

(a) Cleanliness

(b) Wash well with soap and water at least 2 times daily.

(c) Do not squeeze "pimples".

(d) Apply

Rx	Sulphur ppt	9
	Calamine lotion qs	180

Sig. Apply at night.

(e) When Seborrhea (dandruff) of scalp is prominent, use

Rx	Ac Salicylic	3
	Sulphur ppt.	6
	Lanolin	10
	Emulsion base-medium qs ad	60

Sig. Apply to scalp once weekly at night and wash scalp following morning.

(2) Severe cases

(a) Hospitalize, if suppurative or interferes with duty.

(b) Use hot boric acid wet dressings.

(c) Attention to systemic conditions.

(d) Should be referred to regional or general hospital.

3. Dermatitis - (Contact)

a. General Characteristics

(1) Suspect contact dermatitis when acute vesicular patches occur anywhere on the skin -- sudden onset and recurrences.

(2) Very common causes are drugs, hair tonics, deodorants, etc.

(3) Remember that some patients may be sensitive to therapeutic agents prescribed, and suspect this when there is an extension of an eruption under treatment.

b. Dermatitis Hiemalis (winter itch)

(1) Causative factors are dryness from cold weather, irritating effect of woolen clothing, and excessive use of soap and water.

(2) Seen during the winter months.

(3) Begins on the extremities but may become generalized.

(4) Red scaly itching patches on skin, giving a chapped appearance.

(5) Treatment

(a) Hospitalize if severe.

(b) Less frequent bathing, with avoidance of hot baths and excessive use of soap.

(c) Long cotton underwear worn adjacent to skin.

(d) Apply

Rx	Liquid petrolatum	90
	Lanolin	22
	Lime water qs ad	180

Sig. Apply twice daily

c. Soap and Water Dermatitis

(1) Dry scaly dermatitis of hands with fissuring, frequently following "GI parties".

(2) Treatment

(a) Boric Acid ointment

d. Plant Dermatitis

(1) Acute vesicular dermatitis, usually on exposed surfaces.

(2) Look for linear streaks and patches of vesicles.

(3) May be due to any type of vegetation, most frequently poison ivy.

(4) Treatment

(a) Apply calamine lotion with 1% phenol, several times daily.

(b) If severe, hospitalize and use cool boric acid wet dressings.

(c) Do not give injections of extracts.

4. Eczema (atopic dermatitis, neurodermatitis, lichen simplex chronicus)

a. A term used to designate recurrent non-specific inflammation of the skin, moist or dry.

b. Simple rules of management can be followed more easily by classifying as to anatomic location, as follows:

(1) Hands

(a) Chronic recurrent, vesicular or scaly eruptions of fingers and hands.

(b) Treatment

(1) Boric acid ointment three times daily.

(2) If dry and scaly, apply

Rx	Oil of cade	1.5
	Zinc oxide oint.	60.0

(3) Avoid excessive use of soap and water.

(4) If severe, hospitalize. Use boric acid wet dressings.

(2) Dorsum of hands, extensor surfaces arms and legs

(a) Circumscribed, crusted, or oozing patches (nummular eczema) most frequently seen during the winter and frequently recurrent.

(b) Should be seen by dermatologic consultant.

(c) Treatment

(1) Silver nitrate 1%, twice daily.

(2) Avoid excessive use of soap and water.

(3) If severe, hospitalize, treat as acute weeping eruption.

(3) Elbows, knees and lateral surfaces of legs (localized neurodermatitis)

(a) Chronic thickened scaly dermatitis.

(b) Thickening of skin is induced and maintained by scratching.

(c) Treatment

(1) Apply

Rx	Oil of cade	1.5
	Zinc oxide oint.	60.0
Sig.	Apply night and morning	

(4) Face, neck, upper chest, arms, cubital and popliteal spaces (atopic dermatitis)

(a) Usually of long duration, beginning in infancy.

(b) History, recurrent attacks.

(c) May be associated with asthma and hay fever.

(d) Should be seen by consultant.

(e) Treatment

(1) Hospitalize if extensive.

(2) Avoid excessive use of soap and water.

(3) Avoid contact and inhalation of wool. (Cover woolen blankets with sheets.)

(4) If weeping or infected, treat accordingly.

(5) If dry, apply

Rx	Phenol	1
	Icthyol	3
	Zinc Oxide Ointment qs ad	100

Or

Rx	Burow's Solution	10.0
	Lanolin	20.0
	Lassar's Paste qs ad	60.0

"5. Fungus Infections - (Superficial)

a. Trichophytosis

(1) General Characteristics

(a) Uncomplicated fungus infection produces

(1) Superficial - scattered or grouped vesicles (feet)

(2) Circinate, sharply marginated, scaly, pink patches - active at margin - clearing in center (trunk and extremities)

(3) Intertrigo - interdigital webs of feet - inguinal and crural areas.

(b) Common in anatomic areas of moisture, maceration, accumulation of exfoliated epidermal debris.

(c) Uncomplicated fungus infections rarely produce acute intense inflammation.

(d) Severe inflammation, oozing, edema, suppuration, disabling spreading eruptions are due to secondary bacterial infection, and/or sensitization and chemical irritation from drugs used in treatment.

(2) Treatment - general

(a) Regardless of location - treatment is essentially the same.

(b) If acute weeping dermatitis or gross pus are present, treatment should be appropriate for acute dermatitis or pyogenic dermatitis. The treatment of the fungus element should be disregarded until all signs of acute dermatitis or pyogenic dermatitis have disappeared.

(c) Several days (or weeks in severe cases) of soothing and/or mild bactericidal treatment may be necessary before specific fungicidal treatment can be used.

(3) Treatment - details

(a) Simple, uncomplicated cases -

(1) Boric acid ointment at night, G. I. foot powder during the day.

or

(2) Ointment - fungicidal - (Medical Supply Catalogue Item Number 1322050, probably available early 1945) at night - G. I. foot powder during the day.

or

(3) Rx Sal. Ac. 3
Alcohol 70% 100
Night and morning.

(4) 4-6 weeks of treatment may be necessary to cure with the above treatment. Slow cure is preferable to a sensitization dermatitis which is more disabling and serious than the original infection.

(b) Complicated cases - acute dermatitis and pyogenic infection present.

(1) Wet dressings with boric acid solution, Burow's solution, or potassium permanganate solution 1:12000.

(2) Continue 7 - 10 days if necessary.

(3) After acute phases subside - treat as in (3), (a), above.

b. Tinea Versicolor

(1) Light brown, superficial, scaly patches - usually on upper trunk.

(2) Usually asymptomatic - responds readily to treatment.

(3) Treatment

(a) Rx Sal. Ac. 2
Alcohol 70% 100

Sig. Apply at night - 7 applications

or

(b) Ointment - fungicidal (Medical Supply Catalogue Item Number 1322050) when available."

6. Scabies

a. An itching eruption of small vesicles and papules, with lesions predominantly between fingers, flexor surfaces of wrist, elbows, anterior axillary folds, waistline, penis, and lower gluteal fold. Most commonly overlooked of all skin diseases.

b. Treatment

(1) Hospitalize.

(2) Warm soap and water bath followed by application to entire body except face and neck, of

Rx	Sulphur ppt.	12.
	Balsam Peru	12.
	Lanolin	
	Petrolatum aa qs ad	200.

Sig. Apply night and morning for 3 days.

(3) During treatment the patient is to wear the same pajamas and no bath is to be taken until the fourth morning. A dermatitis may result from repeated applications of sulphur or balsam of Peru. When the dermatitis is mild, the patient may be returned to duty. If the dermatitis is severe, hospitalization should be continued.

(4) In all cases of dermatitis, the following will be applied twice daily for 10 days:

Rx	Liquid Petrolatum	90.
	Lanolin	22.
	Lime Water sq ad	180.

(5) Itching not infrequently persists for several days after the scabies is cured; therefore, no case should be retreated unless definite signs of scabies are present ten days after completion of initial treatment.

(6) Upon discharge of patient from hospital, it should be made certain that he has a clean suit of underwear and that his O.D. trousers and shirt have been dry cleaned. All clothes worn immediately before admission to hospital should be laundered or dry cleaned before wearing.

(7) Other occupants of soldiers' barracks should be inspected.

7. Prickly Heat

a. Mild

(1) Treatment

(a) Increase Sodium Chloride intake.

(b) Avoid highly seasoned foods and alcoholic drinks.

(c) Avoid strong soaps in bathing.

(d) Rx

Camphor	4.
Zinc Oxide	16.
Starch	32.

Sig. Apply several times daily.

or

Rx

Talc	20.
Zinc Oxide Powder	20.
Starch	10.
Glycerin	10.
Distilled water qs ad	120.

Sig. Apply heavily several times daily.

(e) Either of the above may be useful prophylactically.

b. Severe cases

(1) Hospitalize if infected or if irritated by treatment.

(2) Cool baths of potassium permanganate twice daily, 45 minutes each. Use 5 grains to a gallon of water (make sure that potassium permanganate is completely dissolved).

8. Sunburn

a. Mild cases

(1) Treatment

(a) Apply

Rx

Boric acid oint (USP)	___
Emulsion base	aa

Sig. Apply TID

b. Severe cases

(1) Treatment

(a) Hospitalize.

(b) Use cool boric acid compresses or starch bath - (one-half pound of starch to tub).

(c) Treat severe burns according to SGO Circular Letter #161, 1943.

9. Herpes Simplex - "Fever Blister"

   a. Treatment

      (1) Spirit of Camphor 3 times daily.

      (2) Cold boric packs if edema and inflammation present.

      (3) Boric acid ointment 3 times daily if infected.

      (4) If history of several previous attacks, vaccinate 4 times with smallpox vaccine at weekly intervals, unless a "take" occurs, in which case, do not revaccinate until reaction subsides.

10. Herpes Zoster

   a. Acute vesicular eruption - may be preceded by pain and hyperaesthesia.

   b. Roughly follows peripheral nerve distribution - always unilateral.

   c. Most frequent sites are chest wall, supra orbital region and extremities.

   d. Treatment

      (1) Relieve pain with codeine and aspirin.

      (2) Boric acid wet dressings if moist lesions present.

      (3) Calamine lotion if mild.

      (4) Hospitalize if severe, secondarily infected, or ophthalmic.

11. Urticaria

a. Acute cases

(1) May be due to serum. If so, are self-limited.

(2) If thought to be due to food:

(a) Treatment

(1) Castor oil, 1 ounce.

(2) Calamine lotion with 1% phenol.

(3) Cool starch baths.

(4) Epinephrine, 1:1000, 0.2 cc, repeated in one hour if necessary.

b. Chronic cases

(1) Should be seen by dermatologist or allergist.

12. Hyperidrosis

a. Usually occurs as localized areas of excessive sweating on the feet.

b. These areas are whitish in color and usually macerated.

c. Treatment

(1) Potassium permanganate soaks (5 grains to 2 quarts of cool water), thirty minutes twice a day.

(2) If no improvement is noted in 5 to 7 days, apply 5% solution of formalin at night. Shoes are not to be worn again until morning of the next day. Irritation may result from the use of this agent.

(3) Hospitalize if severe, macerated or with offensive odor.

13. Pityriasis Rosea

a. An acute disease characterized by oval pink, scaly patches, with the long axis of the lesions paralleling the lines of cleavage of the skin.

b. Most commonly distributed on the trunk.

c. In many cases a single (herald) patch precedes the generalized eruption by a week or ten days.

d. Self-limited, duration six to eight weeks.

e. Treatment

(1) Calamine lotion locally.

(2) Avoid the excessive use of soap.

(3) Hospitalize if very severe.

14. Psoriasis

a. Occurs as reddish patches covered with silvery scales and with predilection for the

elbows, knees, scalp and legs.

b. Treatment

(1) Rx Ac Salicylic 3
Ung. Hydrag. Ammon. (5%) 100

Sig. Apply at night after bathing.

c. Hospitalize if acute, severe, extensive or disfiguring.

15. Insect Bites

a. Most frequent offenders are mosquitoes, chiggers, bedbugs, and ticks.

b. Prophylactic measures

(1) G.I. Insect Repellent, or

(2) DDT, when it becomes available.

(3) Rx Sublimed sulphur 5
Talc 100

Sig. Apply before exposure

c. Treatment

(1) If infected, treat as pyoderma (ecthyma).

(2) For uncomplicated case, use calamine lotion with 1% phenol several times daily.

(3) Remove ticks with forceps, gasoline or ether.

16. Pediculosis

a. Pediculosis Pubis

(1) Usually seen in pubic region but may be found on other hairy parts of the body.

(2) Treatment

(a) Apply DDT, if available, or

(b) Spray involved areas with Flit, (or similar insecticide spray) followed by bath within two hours.

b. Pediculosis Corporis

(1) Intense itching, more prevalent over upper back of waistline.

(2) Lice are usually not found on the skin - look for lice in seams of clothing.

(3) Linear excoriations over back, shoulders, and waistline, from scratching.

(4) Treatment

(a) DDT, when it becomes available, or,

(b) Soap and water bath.

(c) Apply scabies ointment.

(d) Delouse clothing.

c. Pediculosis Capitis

(1) First evidence may be scratch marks at the edges of scalp.

(2) Lice may be difficult to find - nits are found attached to hairs.

(3) Treatment

(a) Shampoo (soap and water).

(b) Apply to scalp equal parts of olive oil and kerosene and wrap head in a towel. (inflammable).

(c) Wash scalp following morning, apply vinegar to loosen nits, and comb with fine-tooth comb.

17. Genital Lesions

a. The most frequent lesions on the genitalia are scabies, insect bites, herpes simplex, chancroid, chancre, non-specific balanitis, and warts.

b. The entire skin should always be examined.

c. Local treatments should not be used until the diagnosis is definitely established.

d. All ulcerated and moist lesions should have a darkfield examination. Normal saline wet dressings should be used on the lesion for several hours before the patient is sent for darkfield examination. Do not accept a negative report as final until at least three daily examinations have been made.

e. Treatment

(1) Scabies--treat the general eruption.

(2) Herpes--apply 10% boric acid powder in talc.

(3) Insect bites--treat as indicated for bites.

(4) Chancre and chancroid--study and treatment will conform with SGO Circular Letter #74 and other directives.

(5) Superficial non-specific balanitis

(a) Apply sulfadiazine ointment 5%, twice a day, or

(b) U.S.P. Hydrogen peroxide diluted four times with water, and used as wet dressing, thirty minutes, three times a day.

18. Warts

a. Treatment

(1) Isolated warts of the hands, scalp, trunk, and extremities should be removed by desiccation, superficial cautery, and/or currettage.

(2) Multiple (10-20) warts should either be allowed to go untreated or the patient sent to a regional or general hospital.

(3) Patients with painful, persistent and disabling plantar warts should be sent to a regional or general hospital.

(4) Genital warts, if extensive or infected, require hospitalization and removal by cautery or desiccation.

19. Nevi (moles)

a. Non-pigmented, fleshy nevi should not be removed unless in areas of trauma.

b. Pigmented nevi should not be treated in any way except on the advice of the dermatologic or surgical consultant.

c. Pigmented nevi which are showing evidence of growth or change should be seen immediately by a dermatologic consultant.

20. Keloids

a. Should not be treated unless painful or of such size and location as to interfere with the performance of duty. Such cases should be seen by the dermatologic or surgical consultant.

21. Malignant new growths of the skin

a. Any suspected malignant new growths of the skin should be seen immediately by the dermatologic or surgical consultant.